UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

Advanced Respiratory, Inc.,

Plaintiff,

v.

Electromed, Inc.,

Defendant.

Civil No. 00-2646 (DWF/SRN)

MEMORANDUM OPINION AND ORDER

Edward M. Laine, Esq., Edward F. Fox, Esq., Cyrus A. Morton, Esq., and David J. McKinley, Esq., Oppenheimer, Wolff & Donnelly, 3300 Plaza VII Building, 45 South 7th Street, Minneapolis, Minnesota 55402, counsel for Plaintiff.

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Introduction

The above-entitled matter is before the undersigned United States District Judge pursuant to Plaintiff's and Defendant's cross-motions for summary judgment. For the reasons set forth below, Plaintiff's motion is granted in part and denied in part, and Defendant's motion is granted in part and denied in part.

Background

This litigation involves a claim by Advanced Respiratory, Inc. ("ARI"), formerly known as American Biosystems, Inc. (collectively, "ARI"), that certain high-frequency chest wall

oscillation ("HFCWO") units manufactured by Defendant Electromed, Inc. ("Electromed") infringe ARI's patent rights. In its January 10, 2003, Memorandum Opinion and Order ("*Markman* Order") [Doc. No. 94], the Court rendered claim construction as to U.S. Patent No. 6,036,662 (the "'662 Patent") and U.S. Patent No. 4,838,263 (the "'263 Patent"). ARI retains exclusive license and enforcement rights for the '263 Patent. In addition, ARI owns the rights for the '662 Patent. These two patents are the subject of the instant cross-motions for summary judgment.

First, ARI asserts that Electromed's MedPulse respiratory vest system literally infringes on the '263 Patent and the '662 Patent. Second, ARI asserts that Electromed cannot prove invalidity of the '263 or '662 Patent. Finally, ARI contends that summary judgment is appropriate on Electromed's false advertising claims brought under the Lanham Act and the Minnesota Deceptive Trade Practices Act. Electromed opposes ARI's motion regarding validity and infringement and moves for summary judgment on the issues of invalidity and non-infringement of both patents.

2. The MedPulse Device

The MedPulse device functions to loosen and eliminate mucus from the lungs of a patient with a respiratory disorder such as cystic fibrosis. Specifically, the MedPulse device utilizes diaphragm technology to supply air pressure pulses to a vest bladder that, in turn, applies compression pulses to a person's chest. The MedPulse has three main components that work together to provide this oscillatory chest compression therapy: a vest, an air pulse generator (or pulsator), and a hose.

The air pulse generator creates pulses of air that are sent through the hose to the vest to provide chest compressions to the patient. Specifically, the MedPulse air pulse generator creates pulses of air with a pair of diaphragms mounted on a case and controlled by an electric motor. The rotational force of the electric motor drives two scotch yokes to create a reciprocating motion between the two diaphragms. Each yoke is made up of an opening that accommodates a slide block. The slide block itself has an opening that accommodates an eccentric attached to the shaft. When the crankshaft rotates, it causes the eccentric to rotate, and thus drives the vertical movement of the yoke. Because of the movement of the scotch yokes, the diaphragms remain parallel, but move toward each other to increase the pressure of air in the air chamber and thus to generate air pulses.

The space between the two diaphragms makes up the pulsing chamber in which the oscillatory pulses are generated. When the diaphragms move closer together, a pulse is created. When the diaphragms move apart, make-up air is pumped into the system. The frequency of the diaphragm movements is determined by the speed of the electric motor. A controller and a potentiometer vary the voltage to the motor and thus control the motor speed.

A pressure control knob is attached to a valve which determines the size of the airflow passage and thus the rate of air flow through the passage. Air flows through the passage and into the vestibule chamber. Two check valves open or close to create an equilibrium state of pressure between the vestibule and the pulsing chambers.

Air pulses are transmitted from the pulsator to the perforated bladder through a hose. The bladder has a number of small holes or perforations that allow air to flow from the bladder

chamber to the atmosphere for venting. The holes remain open and the user cannot adjust the flow of air through the holes.

On April 15, 2003, and subsequent to the summary judgment oral argument on this matter, U.S. Patent No. 6,457,749 B2 (the "'749 Patent") was issued to Craig Hansen and assigned to Electromed. Electromed has since asserted that this Patent clearly covers the MedPulse device and is a relevant issue on the issue of non-infringement of the '263 and '662 Patents.

Discussion

1. Standard of Review

Summary judgment is proper if there are no disputed issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). The court must view the evidence and the inferences that may be reasonably drawn from the evidence in the light most favorable to the nonmoving party. *Enterprise Bank v. Magna Bank of Missouri*, 92 F.3d 743, 747 (8th Cir. 1996). However, as the Supreme Court has stated, "[s]ummary judgment procedure is properly regarded not as a disfavored procedural shortcut, but rather as an integral part of the Federal Rules as a whole, which are designed 'to secure the just, speedy, and inexpensive determination of every action.'" Fed. R. Civ. P. 1; *Celotex Corp. v. Catrett*, 477 U.S. 317, 327 (1986).

The moving party bears the burden of showing that there is no genuine issue of material fact and that it is entitled to judgment as a matter of law. *Enterprise Bank*, 92 F.3d at 747. The nonmoving party must demonstrate the existence of specific facts in the record which create a genuine issue for trial. *Krenik v. County of Le Sueur*, 47 F.3d 953, 957 (8th Cir. 1995). A party

opposing a properly supported motion for summary judgment may not rest upon mere allegations or denials, but must set forth specific facts showing that there is a genuine issue for trial. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 256 (1986); *Krenik*, 47 F.3d at 957.

2. The '263 Patent

The '263 Patent consists of a single independent claim and seven dependent claims. Claim 1, the independent claim allegedly infringed by Electromed, reads:

> Oscillatory chest compression apparatus for a person, comprising:
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> means for applying a force to the chest of such person, said force applying means including a bladder for receiving pressurized air;
> means for supplying a continuous regular pattern of pulses of said pressurized air to said bladder at a frequency irrespective of and greater than the breathing frequency of said person;
> means for venting said pressurized air from said bladder; and
> means for controlling said pressurized air in said bladder so that the pressure therein can be increased and decreased in correspondence with the expiration and inspiration breathing frequency of said person wherein said force is applied by said applying means at the pulse frequency of said supplying means with greater impact when said controlling means allows increased air pressure in said bladder and with lessor impact when said controlling means allows decreased air pressure in said bladder.

('263, c. 7, ll: 38-58; c. 8, ll: 1-2.)

Electromed asserts that the '263 Patent is invalid because it fails to point out and distinctly claim the invention as required by 35 U.S.C. § 112, ¶ 2. In addition, Electromed asserts that the MedPulse 2000 System does not infringe claim 1 of the '263 Patent. ARI opposes Electromed's motions for summary judgment as to both of these issues and moves for summary judgment on the same.

A. Invalidity

First, Electromed contends that the '263 Patent is invalid because the claim does not include any structure for generating pressurized air in the apparatus, thus rendering the claim incomplete and indefinite. Electromed fails to note, however, that the Court addressed this exact issue in its *Markman* Order dated January 10, 2003. In that Order, the Court stated as follows:

> Regarding the force-applying means, Defendant argues that the limitation is incomplete because it does not include a means for providing a supply of pressurized air to the bladder. Plaintiff contends that the means for providing pressurized air is defined by the second means clause of the '263 Patent, and thus need not be interpreted as to the first means clause of Claim 1.
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> It appears to the Court that the patent specification describes one structure for supplying all of the pressurized air to the bladder. Specifically, the two alternate embodiments of the patent describe structures that allow the bladder to fill with air to apply force to the chest of a person. In one embodiment of the patent, the patient closes a switch which opens a solenoid valve to supply pressurized air flow to the bladder. In the second embodiment, a bellows system provides pressurized air flow to the bladder. The patient closes a vent hold and a switch controlling a solenoid valve to fill the bladder with pressurized air.
>
> Under either of these embodiments, it appears to the Court that any air that remains in the bladder to establish the "base pressure," as it is referred to by Plaintiffs, is a result of the patient having not evacuated all of the pressurized air from the bladder according to the venting means, as described below. The specification and the two alternate embodiments only describe one means of supplying pressurized air to the bladder; there is no separate structure to create a so-called "base pressure." Because the Court interprets the means for supplying all of the pressurized air to the bladder in its discussion of the supplying means clause of Claim 1, the Court need not include the means for supplying air to the bladder in the Court's construction of the first means clause.

See Memorandum Opinion and Order, January 10, 2003, at 7 (*internal citations omitted*). Because the Court already determined that the '263 Patent disclosed sufficient means for supplying pressurized air to the bladder, the Court will not revisit this issue. Thus, summary

judgment is inappropriate on Electromed's claim of invalidity of the '263 Patent and Electromed's motion is denied in that regard.

In addition to opposing Electromed's claim of invalidity on the indefiniteness issue, ARI moves for summary judgment on the issue of validity of the '263 Patent. Specifically, ARI asserts that Claim 1 of the '263 Patent is neither anticipated nor obvious in view of prior art. Electromed has not argued anticipation, so the Court need not address that issue. On the issue of obviousness, however, Electromed has failed to raise any other issues of fact in regard to the '263 Patent. While Electromed has raised several arguments about prior art in relation to the '263 Patent, these arguments only appear to be in favor of narrowing the scope of the '263 Patent, and do not respond to ARI's assertions of non-obviousness. Electromed has plainly not brought any information to the Court's attention to counter ARI's motion for summary judgment on this issue. Thus, no genuine issue of material fact exists as to the validity of the '263 Patent, and ARI's motion for summary judgment is granted in that regard.

B. Non-infringement

As a second ground for summary judgment, Electromed asserts that its MedPulse system does not infringe the '263 Patent. ARI asserts that the MedPulse system literally infringes the '263 Patent and moves for summary judgment on that issue.

Summary judgment on the issue of non-infringement is a two-step process in which the Court first construes the patent claims, and second, applies the properly interpreted claims to the accused device to determine whether the scope of the claims covers the accused device. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1304 (Fed. Cir. 1999). Here, the Court

completed claim construction in its *Markman* Order and the only remaining issue is whether or not the patent claims read on Electromed's accused products.

ARI asserts literal infringement of all four means clauses of Claim 1 of the '263 Patent: the force-applying means, the supplying means, the venting means, and the controlling means. In its *Markman* Order, the Court determined that all of these elements of Claim 1 of the '263 Patent were in means-plus-function form, such that 36 U.S.C. § 112 ¶ 6 applies. In order to establish literal infringement of a means-plus-function claim, the plaintiff must establish that the accused device has structure for performing the same function as that recited in the claim. *Wenger Mfg., Inc. v. Coating Machinery Systems, Inc.*, 239 F.3d 1225, 1238 (Fed. Cir. 2001), *citing Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999). The structure in the accused device "must be either identical or equivalent to the corresponding structure in the specification." *Wenger*, 239 F.3d at 1238. Two structures "may be 'equivalent' for purposes of [§ 112, ¶ 6] if they perform the identical function, in substantially the same way, with substantially the same result. *Kemco Sales, Inc. v. Control Papers Co., Inc.*, 208 F.3d 1352, 1364 (Fed. Cir. 2000). [1]

The central dispute regarding the '263 Patent is based upon the third element of Claim 1, the venting means. In its *Markman* Order, the Court established that based upon the specification and the prosecution history of the '263 Patent, "the structure that corresponds to the venting

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[1] As a preliminary matter, the Court notes that Electromed's assertions regarding the '263 Patent being a combination patent in a crowded field, and therefore narrowing the range of equivalents, are misplaced. Such arguments appear to be only appropriate under a doctrine of equivalents analysis, and ARI has not moved for summary judgment on that issue. The cases that Electromed sets forth in support of its argument regarding the crowded field doctrine address such a doctrine only in relation to a doctrine of equivalents analysis. *See Slimfold Mfg. Co., Inc. v. Kinkead Indus., Inc.*, 932 F.2d 1453, 1457 (Fed. Cir. 1991); *Simmons Fastener Corp. v. Illinois Tool Works, Inc.*, 663 F. Supp. 697, 704 (N.D. N.Y. 1987).

function requires human interaction with a tube, hose, or switch, or an equivalent structure, in order to vent pressurized air from the bladder." *Markman* Order at 9-10. Considering this construction, Electromed contends that because its MedPulse device does not include the "human interaction" requirement for venting, it therefore cannot infringe the '263 Patent as a matter of law. ARI, on the other hand, asserts that the identical venting function of the '263 Patent is performed in substantially the same manner to achieve substantially the same result.

Based upon the Court's construction of the venting means of the '263 Patent to require human interaction for venting, the Court finds that the MedPulse product does not read on the '263 Patent as a matter of law. The MedPulse product clearly uses tiny perforations in the air bladder to provide venting of pressurized air. This venting function is done passively, without any active human interaction. The perforated bladder does not perform the venting function in "substantially the same way" as the '263 Patent. *Kemco*, 208 F.3d at 1364. Because of this significant difference between the '263 Patent and the MedPulse device, the Court need not address the other elements of the '263 Patent. ARI's motion for summary judgment on the issue of infringement of the '263 Patent is denied. Electromed's motion for summary judgment on the issue of non-infringement is granted.

3. The '662 Patent

Claim 1 of the patent, allegedly infringed by Electromed, reads:

An apparatus for generating oscillatory air pulses in a bladder positioned about a person, comprising:
an oscillatory air flow generator, comprising
an air chamber;
a reciprocating diaphragm operably connected with
the air chamber,

a rod having a first end and a second end, the first end operably connected with the diaphragm, and the rod extending generally orthogonal to the diaphragm;
a crankshaft operably connected with the second end of the rod and extending generally orthogonal to the rod; and
a first motor operably connected with the crankshaft;
a continuous air flow generator operably connected with the oscillatory air flow generator;
a first feedback and control means operably connected with the oscillatory air flow generator for maintaining the frequency of the oscillatory air flow generator at a predetermined value;
and a second feedback and control means operably connected with the continuous air flow generator for continuously varying the output pressure of the continuous air flow generator in order to maintain the peak pressure generated by the positive air flow generator at a predetermined value.

A. Invalidity

In its Motion for Summary Judgment, Electromed makes several assertions regarding the issue of invalidity of the '662 Patent. First, Electromed argues that the Court's construction of the air chamber in the '662 Patent as "a space containing air" that is "operably connected" to the diaphragm is an engineering impossibility. Next, Electromed contends that the "continuous airflow generator" of the '662 Patent is ambiguous and indefinite in light of the Court's construction of that term. Electromed further asserts that the function of the first feedback and control means is ambiguous and indefinite. Finally, Electromed also alleges that Claim 1 of the '662 Patent is invalid and obvious in view of prior art.[2]

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[2] ARI also addressed the issue of anticipation in its briefs. However, because Electromed concedes that it has not argued anticipation, the Court need not address this issue. *See* Electromed's Reply Memorandum in Response to Advanced Respiratory's Opposition to Electromed's Motion for Summary Judgment at 1, n.1.

1. The Air Chamber

The Court finds that its construction of the term "air chamber" as a "space containing air" is not an engineering impossibility. Had the Court merely defined the air chamber as a "space," this issue could conceivably arise. However, the Court used the word "containing" which clearly contemplates distinct parameters or confines around the air-filled space. Thus, as defined by the Court, the air chamber certainly can be operably connected to the diaphragm, contrary to Electromed's assertions. This element of the claim does not fail for indefiniteness.

2. The Continuous Airflow Generator and the Feedback and Control Means.

As to Electromed's assertions regarding the continuous airflow generator and the first feedback and control means limitation, the Court finds that these components do not fail for indefiniteness. Whether a claim is sufficiently definite involves a determination as to whether the claim, when read in light of the specification, reasonably describes the bounds of the invention to a person ordinarily skilled in the art. *See Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1378 (Fed. Cir. 2000). Thus, the claim need not precisely describe the invention. Here, Electromed has not demonstrated that one skilled in the art would fail to understand the continuous airflow generator or the first feedback and control means when read in light of the specification. These two components of Claim 1 of the '662 Patent do not fail for indefiniteness, and Electromed's motion for summary judgment is denied in that regard.

3. Obviousness

Electromed asserts that the '662 Patent is invalid based upon obviousness. Invalidity based upon obviousness is a question of law that is determined by underlying questions of fact.

Beckson Marine, Inc. v. NFM, Inc., 292 F.3d 718, 724 (Fed. Cir. 2002). These underlying factual inquiries include: "'(1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness.'" *Id.* at 725-26 (*quoting In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999)). While a patent is invalid if it would have been obvious to a person of ordinary skill in the art, the defendant has the burden to prove obviousness by clear and convincing evidence. *Id.*, *citing* 35 U.S.C. § 103(a). The defendant may not use hindsight to determine obviousness; rather, the defendant must show "some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in a way that would produce the claimed invention." *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1385 (Fed. Cir. 2001).

Here, Electromed asserts that the '662 Patent is obvious in light of U.S. Patent No. 2,918,917 ("Emerson"), granted in 1959. Emerson discloses a gas-mask-like apparatus that is used for vibrating portions of a person's airway. In addition, Emerson discloses a rheostat connected with an electric motor. Undisputedly, the Emerson rheostat can be adjusted to change the current to the motor and thus regulate the speed of the motor. The rheostat is used to provide a user-selected amount of air pressure to the system. Emerson does not identify feedback controllers for its electric motors; nor does it otherwise mention feedback and control. However, Electromed suggests that the use of such feedback controllers with an electric motor, as in the '662 Patent, is an obvious component that could be used to control the speed of the motor. Specifically, Electromed asserts that "[t]he motor controller rheostat *could have* feedback circuits." *See* Defendant Electromed, Inc.'s Memorandum in Support of Defendant's Motion for

Summary Judgment at 15 (*emphasis supplied*). In support of this argument, Electromed sets forth the deposition testimony of Nicholas Van Brunt, wherein Mr. Van Brunt stated that a general feedback control for an electric motor is well-known in the art of control systems, and that such a control *could be* purchased off-the-shelf and added to the Emerson motor in lieu of the rheostat. *See* Aff. of Richard O. Bartz, ¶ 11, Ex. 9.

Without reaching the issue of the application differences between Emerson and the '662 Patent (pulsing through the face mask of Emerson versus through the chest compression apparatus of the '662 Patent), the Court finds as a matter of law that Electromed has not demonstrated by clear and convincing evidence that the '662 Patent is obvious in light of Emerson. Specifically, Electromed has not demonstrated that, without hindsight, Emerson teaches the feedback and control mechanism of the '662 Patent. While the Court recognizes that it construed the feedback and control mechanism of the '662 Patent to act in the same manner as a room thermostat, a rheostat is not a thermostat. Mr. Van Brunt's deposition testimony is not enough to raise a genuine issue of fact as to the obviousness of the use of a feedback and control mechanism in the prior art. His testimony merely raised the possibility that, in hindsight, he could have envisioned the use of an off-the-shelf feedback control system in place of the rheostat. Finally, as noted by ARI, secondary considerations such as the large amount of revenues and the acceptance in the marketplace of the ARI product counsel in favor of nonobviousness.

Based upon these considerations, Electromed's claim of obviousness fails, and its summary judgment motion is denied. Summary judgment on this issue is granted in favor of ARI.

B. Non-infringement

Literal infringement occurs when every claim limitation is present exactly in the accused product. *Southwall Technologies, Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed. Cir. 1995).

In order to establish literal infringement, a patentee must prove that the accused device contains each limitation of the asserted claims. *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). In the instant case, the parties focus their infringement analysis on Claim 1 of the '662 Patent.

With that in mind, the parties appear to have three central disputes as to the infringement analysis of Claim 1 of the '662 Patent.[3] First, ARI contends that the rod and crankshaft mechanism of the '662 Patent reads on the scotch yoke system of the MedPulse device. Second, ARI contends that the continuous airflow generator of the '662 Patent reads on the airflow generator of the MedPulse device. Finally, ARI asserts that MedPulse device infringes the feedback and control limitations of the '662 Patent. Electromed contends that the MedPulse device lacks these three elements and thus does not infringe.[4]

As to infringement of the rod and crankshaft mechanism of the '662 Patent, a genuine issue of fact exists as to whether the scotch yoke mechanisms of the MedPulse device infringe

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[3] Because the Court has already rejected Electromed's arguments of ambiguity or indefiniteness of the "air chamber," this element is not in dispute. In addition, Electromed concedes that its MedPulse device utilizes a pair of diaphragms. Thus, the only issues remaining in dispute as to the infringement analysis for the '662 Patent are the rod and crankshaft, the continuous airflow generator, and the feedback and control mechanism.

[4] Here, too, Electromed asserts that the '662 Patent is a combination patent in a crowded field, and thus entitled to a narrow interpretation and range of equivalents. As noted in the Court's analysis of this issue as to the '263 Patent, such arguments are misplaced with respect to a literal infringement analysis.

the '662 Patent. According to the claim language of the '662 Patent, the rod is operably connected with the diaphragm on its one end and the crankshaft on its other end. The Court construed the "rod" of the '662 Patent as "any straight link that transmits motion or power from one linkage to another within a mechanism." *Markman* Order at 16-17. With that construction in mind, a jury could determine that significant differences exist between the scotch yoke mechanism and the '662 Patent. For instance, the MedPulse device's scotch yoke's connection to the diaphragm appears to be more of an indirect connection than the operable connection between the rod, crankshaft, and diaphragm of the '662 Patent. The MedPulse device has intervening structures, including a yoke and a slide block, between the eccentric shaft and the diaphragms. Whether that connection still remains an "operable connection" is a question of fact. In addition, a question exists as to whether the rod structure of the '662 Patent encompasses a yoke or scotch yoke. The extent of the differences or similarities among these structures is best left to the jury to decide.

Questions of fact also exist as to whether the MedPulse device infringes the continuous airflow generator and the feedback and control mechanisms of the '662 Patent. The Court construed the "continuous airflow generator" of the '662 Patent as follows:

> a mechanism that is used to supply and maintain a user-selected air pressure in the air chamber, thus compensating for leaks in the system and for repeated inhalation and exhalation of the user. Together with the pressure compensation feedback system, the continuous airflow generator provides dynamic adjustments in order to maintain such a user-selected air pressure.

Markman Order at 20. The Court construed the feedback and control mechanism in a means-plus-function form, as follows:

> the Court construes the overall structure corresponding to the function of maintaining the frequency of the oscillatory air flow generator as a feedback and control system that acts in the same manner as a room thermostat. With a room thermostat, the user selects a room temperature and the heating or cooling system measures the actual temperature, compares the selected temperature to the actual temperature, and then adjusts to maintain that selected temperature. Here, the user defines a setting for the frequency of oscillations, and the frequency-compensation feedback system 38 measures the oscillation rate, compares it to the user-selected oscillation rate, and adjusts to maintain the user-selected oscillation rate. The Court construes the overall structure corresponding to the function of maintaining the user-selected pressure of the continuous air flow generator as a feedback and control system that also acts in the same manner as a room thermostat, as described above. The user defines a setting for the pressure, and the pressure-compensation feedback system 50 measures the pressure, compares it to the user-selected pressure, and adjusts to maintain the user-selected pressure value. This construction includes the functional equivalents of these structures.

Markman Order at 23-24. ARI asserts that the diaphragm airflow generator of the MedPulse device is operably connected with the oscillatory airflow generator, and supplies adjustments in order to compensate for the air that vents through the perforated bladder of the MedPulse device, thus compensating for inhalation and exhalation of the user and maintaining a baseline pressure. ARI further alleges that the flapper or check valves in the MedPulse device act as a feedback and control mechanism, defining, comparing, and adjusting the frequency of oscillations and the pressure in the system to user-selected values.

Because the Court previously construed the continuous airflow generator of the '662 Patent to work in conjunction with its feedback and control mechanisms, the Court's determination as to infringement on these issues necessarily depends upon whether the Court determines that the check valves in the MedPulse device function as a feedback and control mechanism, as it was construed by the Court. On that issue, the Court finds that a genuine issue of fact exists. Specifically, a question exists as to whether the check valves act like a sensor

mechanism in the same manner as the '662 Patent, thereby detecting and measuring the precise level of pressure in the system and adjusting to a defined level. Such a sensor seems integral to the notion of a room thermostat and thus to the example which the Court used to define the feedback and control mechanism.

As to the frequency compensation feedback and control mechanism, ARI asserts that the MedPulse uses a form of feedback and control called IR compensation that allows for the motor speed to be held constant despite changes in the load to the motor. Electromed contends, on the other hand, that the MedPulse device does not compensate to allow for a constant motor speed despite load variations, but rather measures and adjusts to an intermediate variable which "more or less correlates to a desired output." *See* Electromed's Memorandum in Opposition to Advanced Respiratory's Motion for Summary Judgment at 25. In light of this dispute, the Court finds that a question of fact exists as to whether the MedPulse device has a feedback and control mechanism operably connected with the oscillatory airflow generator, corresponding to the compensation feedback system 38 in the '662 Patent. Summary judgment on this issue is inappropriate.

Despite Electromed's claims that the '749 Patent granted to Craig Hansen and assigned to Electromed amounts to an "administrative determination that the '749 device does not literally infringe the . . . '662 Patent[]," the '749 Patent is not dispositive of the issue of infringement. *See Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569 (Fed. Cir. 1984). Considering the various issues of material fact that the Court has found to exist as to the infringement of the '662 Patent, the question of whether or not the '749 Patent acts as an improvement or a complete departure from such prior art remains, too, for the jury to decide.

In summary, the Court finds that the determinations of whether the MedPulse device infringes these three elements of Claim 1 of the '662 Patent are questions of fact for the jury. After a careful review of the '662 Patent and the MedPulse device, it appears to the Court that the MedPulse device does indeed appear to be quite similar to the '662 Patent. However, a jury is the appropriate forum in which to determine the substantiality of the specific differences between the '662 Patent and the MedPulse device. Thus, both ARI's and Electromed's motions for summary judgment are denied as to the infringement and non-infringement issues.

4. False Advertising Counterclaims

ARI asserts that summary judgment is appropriate on Counts III and IV of Electromed's Answer and Counterclaims, wherein Electromed has asserted false advertising under the Lanham Act, 15 U.S.C. § 1125, and under the Minnesota Deceptive Trade Practices Act, Minn. Stat. § 325D.43-48. Because Electromed has not opposed ARI's motion in this regard, no genuine issue of material fact exists. Thus, ARI's motion for summary judgment is properly granted on this issue.

For the reasons stated, **IT IS HEREBY ORDERED:**

1. Plaintiff's Motion for Summary Judgment (Doc. No. 100) is **DENIED IN PART** and **GRANTED IN PART**, as follows:

   a. Plaintiff's Motion for Summary Judgment on the issue of validity of the '263 Patent is **GRANTED**;

   b. Plaintiff's Motion for Summary Judgment on the issue of infringement of the '263 Patent is **DENIED**;

c. Plaintiff's Motion for Summary Judgment on the issue of validity of the '662 Patent is **GRANTED**;

d. Plaintiff's Motion for Summary Judgment on the issue of infringement of the '662 Patent is **DENIED**;

e. Plaintiff's Motion for Summary Judgment on Counts III and IV of Defendant's counterclaims is **GRANTED**, and those two counts are **DISMISSED WITH PREJUDICE**.

2. Defendants' Motion for Summary Judgment (Doc. No. 115) is **DENIED IN PART** and **GRANTED IN PART**, as follows:

a. Defendant's Motion for Summary Judgment on the issue of invalidity of the '263 Patent is **DENIED**;

b. Defendant's Motion for Summary Judgment on the issue of non-infringement of the '263 Patent is **GRANTED**;

c. Defendant's Motion for Summary Judgment on the issue of invalidity of the '662 Patent is **DENIED**;

d. Defendant's Motion for Summary Judgment on the issue of non-infringement of the '662 Patent is **DENIED**.

Dated: May 8, 2003

DONOVAN W. FRANK
Judge of United States District Court

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

Advanced Respiratory, Inc.,

Plaintiff,

v.

Electromed, Inc.,

Defendant.

Civil No. 00-2646 (DWF/SRN)

NOTICE OF JURY TRIAL SET FOR JULY 8, 2003

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Date and Location of Trial

This case is set for jury trial before the undersigned Tuesday, July 8, 2003, at 9:30 a.m. in courtroom #2 of the United States Courthouse, 7th Floor, 316 North Robert Street, St. Paul, Minnesota 55101. Counsel should be aware that, upon receipt of this notice, the Magistrate Judge assigned to the case will be scheduling a full settlement conference. Further, a pretrial conference is scheduled before this Court on **June 25, 2003**, at 1:00 p.m.

Documents to be Submitted for Trial

Unless otherwise ordered, counsel shall deliver one copy of the following documents to opposing counsel, the originals and three additional copies shall all be marked to the attention of the Court's chambers and be delivered to 700 Federal Courts Building, 316 North Robert Street, St. Paul, MN 55101 by **June 20, 2003**.

1. Documents Required for all Trials:

   A. A statement of the case indicating the facts which the party intends to prove and indicating any unresolved substantive, evidentiary and procedural issues. The statement shall include the citation and discussion of authority upon which the party relies for its positions on the unresolved issues.

   B. Exhibit List. If exhibits are to be offered at trial, the following procedure must be followed:

      (i) Counsel shall, no later than **June 13, 2003**, mark all exhibits for identification. All exhibits shall be marked, as much as possible, in the sequence they will be offered, with Arabic numbers. Each exhibit should also be marked with the case number.

      Example: Pltf. or Deft. #1

      Civ. 3-84-2

      (Multiple parties list name, e.g., Pltf. Smith #1)

      (ii) Counsel shall, no later than **June 18, 2003**, make available for examination and, if requested, copying by all counsel, all exhibits which will be offered into evidence at trial. Only exhibits so made

available shall be offered into evidence at trial, except for good cause shown.

(iii) Counsel shall, no later than **June 20, 2003**, submit directly to chambers the original and five copies of the list of exhibits that will be presented at trial on behalf of their client(s). The list shall indicate the exhibits the parties agree are admissible. For the exhibits not so agreed upon, the list shall include the grounds for objection. Only exhibits so listed shall be offered into evidence at trial, except for good cause shown.

C. Witness List. The list shall include the names and addresses of the witnesses, along with a short statement of the substance of the expected testimony of each witness. Only witnesses so listed shall be permitted to testify except for good cause shown. The Court requires the original and five copies of this list.

D. List of Deposition Testimony to be offered into evidence in lieu of live testimony. The list shall designate those specific parts of depositions to be offered at trial. Only depositions so listed shall be offered into evidence at trial except for good cause shown. Any party who wishes to object to listed deposition testimony shall submit objections by **June 13, 2003**.

E. Motions in limine must be received no later than **June 13, 2003**. Responses to motions in limine must be received no later than **June 18, 2003**. All

motions and responses to those motions must be filed as outlined in Local Rule 5.1.

The originals and three additional copies shall all be marked to the attention of the Court's chambers and be delivered to 700 Federal Courts Building, 316 North Robert Street, St. Paul, MN 55101.

2. Additional Documents for Jury Trials. In all jury trials, counsel shall submit the following documents in addition to those listed above:

A. The Court expects the parties to jointly submit a proposed statement of the case. The statement of the case should be a summary of the case, including the title, nature of the action, plaintiff's position, nature of the defense, and defendant's position. (The Court's intent is to give the parties input into the statement that will be read to the jury during voir dire.)

B. Proposed Voir Dire Questions.

C. Proposed Jury Instructions. All proposed jury instructions are required to be jointly filed no later than **June 20, 2003**, except for those whose need could not be foreseen. Each proposed instruction shall be numbered and on a separate page and shall contain citation to legal authority. Jury instructions are to be submitted in the following format:

(i) The parties are required to jointly submit one set of agreed upon instructions. To this end, the parties are required to serve their proposed instructions upon each other two weeks prior to the filing

deadline. The parties should then meet, confer, and submit one complete set of agreed upon instructions.

(ii) The original and three copies of the instructions shall be submitted to the Court in hard copy. In addition, the instructions shall be submitted on a 3.5" diskette, clearly labeled with the case name and number, in WordPerfect 9.0 format.

D. Proposed Special Verdict Forms.

3. Additional Documents for Non-Jury Trials. In all non-jury trials, counsel shall submit proposed findings of fact and conclusions of law in addition to the documents listed in section 1, above.

4. Counsel for all parties are strongly encouraged to meet prior to trial to:

A. Stipulate to all uncontested facts and matters not in controversy.

B. Stipulate to which exhibits may be received without objection prior to trial.

C. Discuss settlement.

Failure to Comply

The failure of any party to comply with the procedures outlined herein shall result in the imposition of an appropriate sanction.

Questions regarding the calendar may be directed to Lowell Lindquist, Calendar Clerk to Judge Frank, 700 Federal Courts Building, 316 North Robert Street St. Paul, Minnesota 55101, (651) 848-1296.

UNDER THE SPEEDY TRIAL ACT, THE TRIAL OF CRIMINAL CASES MAY BE REQUIRED TO TAKE PRECEDENCE OVER THE TRIALS OF CIVIL CASES.

Dated: May 7, 2003

DONOVAN W. FRANK
Judge of United States District Court